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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/638,346	08/15/2000	Danny Leroy Fleming	55680USA9A.002	2529

32692 7590 07/24/2003

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EXAMINER

EGAN, BRIAN P

ART UNIT	PAPER NUMBER
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1772

15

DATE MAILED: 07/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/638,346

Applicant(s)

FLEMING ET AL.

Examiner

Brian P. Egan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 May 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,4-7,10,12,13 and 16-30 is/are pending in the application.
- 4a) Of the above claim(s) 19-30 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,4-7,10,12,13 and 16-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 4-7, 10, 12-13, and 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Calhoun et al. (#5,462,765).

Calhoun et al. ('765) teach a release liner (Fig. 2) for an adhesive backed article (Col. 1, lines 11-16) comprising a surface with an arrangement of structures thereon, wherein the structures are ridges that extend upward from a plane of the surface (Fig. 2), and wherein the structures have at least one sidewall that makes an angle with respect to the plane of the surface of greater than zero degrees and less than ninety degrees selected to enhance adhesion to a tape (Col. 4, lines 57-62). The angle can be further limited between thirty and fifty degrees (Col. 6, lines 26-28). The ridges form a regular and continuous pattern on the surface (Fig. 2; Col. 4, lines 66-67). The ridges have a trapezoidal cross-sectional shape with a flat top (Fig. 2). The adhesive backed article further comprises an imaged film layer, which in itself is a handling tape, on a surface opposite the adhesive layer (Col. 8, lines 33-36).

Calhoun et al. ('765) fail to explicitly teach the Applicant's claimed pitch range and instead teach ridges that have a pitch from 50-250 $\mu$ m. It would have been obvious, however, to one of ordinary skill in the art at the time applicants invention was made to have modified the pitch size such that it falls within the range of 500 to 2500 micrometers since it has been held

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that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

With respect to the Applicant's contention that Calhoun et al. fail to teach a "substantially continuous pattern of structures" wherein "substantially continuous" is defined by the Applicant to mean a pattern of structures that creates a substantially uninterrupted network of channels in the adhesive layer, the Examiner respectfully disagrees. The Applicant has interpreted Calhoun et al.'s disclosure on page 4, lines 48-56 as failing to teach a "substantially continuous pattern." Calhoun et al., however, teach that either a single interconnected recess may circumscribe one or more land areas or the recesses may be disconnected. Calhoun et al. further teach that both recesses and the land can extend uninterruptedly across the flexible carrier web (Col. 4, lines 52-53). Therefore, the land areas, which ultimately create the channels in the adhesive layer, can extend uninterruptedly across the flexible carrier web, depending on the desired end product. Further note that in embodiments where the land areas extend uninterruptedly across the flexible carrier web, the ridges are overlapping.

3. Claims 1, 4-7, 10, 12-13, and 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Calhoun et al. (#5,897,930).

Calhoun et al. ('930) teach a release liner (see Abstract) for an adhesive backed article comprising a surface with a pattern of substantially continuous trapezoidal structures thereon (Figs. 1-3; Col. 6, line 30), wherein the structures extend upward from a plane of the surface (Figs. 1-2). The adhesive backed article comprises an imaged film layer, which in itself is a handling tape, on the surface opposite the release liner (Col. 1, lines 15-31; see also Col. 2, lines 38-55). Although Calhoun et al. ('930) do not explicitly state the angles of the sidewalls,

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Calhoun et al. ('930) state that "the sidewalls of embossings for any of pattern 24, pattern 26, or any combination of them, can be any shape desired, ranging from a constant radius of curvature to any polygonal shape of at least 2 surfaces within the pattern 24 or 26. Nonlimiting examples of shapes of embossing, in cross-section, include curved, rectangular, trapezoidal, triangular, bimodal, and the like (Col. 6, lines 25-31)." Note that the aforementioned quote would allow the release liner to be formed with overlapping ridges depending on the desired end product.

Therefore, it would have been an obvious matter of design choice to one of ordinary skill in the art at the time applicant's invention was made to have modified the release liner to have sidewalls ranging in angles from 0-90 degrees and to have overlapping ridges based on the desired end product as taught by Calhoun et al. ('930) above.

Calhoun et al. ('930) fail to explicitly teach the Applicant's claimed pitch range and instead teach that the pitch of the embossings is less than 200 $\mu$ m (Col. 6, lines 43-47) and also give an example wherein a .25mm diameter embosser is used to place 190 posts per square centimeter in a square lattice pattern (Col. 7, lines 46-50). Although the pitch size as detailed by Calhoun et al. ('930) is outside of the Applicant's claimed range, it would have been obvious to one of ordinary skill in the art at the time applicants invention was made to have modified the pitch size such that it falls within the range of 500 to 2500 micrometers since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

4. Claims 1, 4-6, 10, 12-13, and 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abe (WO 99/35201).

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Abe teaches a release liner for an adhesive backed article comprising a surface with an arrangement of structures thereon, wherein the structures extend upward from a plane of the surface (see Abstract). The structures are trapezoidal ridges that form a continuous and regular pattern wherein the ridges have a pitch between 50 and 1000 $\mu$ m (or a pitch between 150 and 11,000 $\mu$ m according to the applicants remarks in paper no. 9 – regardless, Abe teaches a pitch value within the Applicant's claimed range). The adhesive article further comprises an imaged film layer, which in itself is a handling tape, on a surface of the adhesive opposite the release liner (p.10, line 8 to p.11, line 7).

Although Abe is silent in relation to the angle of the sidewalls of the release liner, it is notoriously well known that a trapezoid is a “quadrilateral with two parallel sides (*Webster's II New Riverside University Dictionary*, The Riverside Publishing Company: Boston, MA. 1984).” Abe teaches that, “the depressed portion surrounded by the projections had the trapezoidal section in the vertical direction (p.13, lines 22-23).” Therefore, one of ordinary skill in the art would recognize that the top and bottom surfaces of the trapezoidal projection are parallel and the side walls form the angles of the trapezoid. Thus, even if one of the side walls is set at a 90 degree angle, the other side wall cannot be 90 degrees or it would be parallel with the other sidewall and a square or rectangle would be formed rather than a trapezoid. Given that the structures project into the grooves of the adhesive layer (p.13, lines 18-20), the angles formed must be 90 degrees or less, because it would be impossible to match the projection with the groove if the top portion of the projection were wider than the base (since it would be impossible to force the top portion through an opening the size of the narrow base). Therefore, at least one of the sidewalls has an angle from 0-90 degrees. Given that the angle can fall anywhere within

this range, the further limitation of an angle between 30 and 50 degrees is also met (unfortunately, Abe (WO 99/35201) is not provided with any figures depicting the claimed structure to help in simplifying the aforementioned analysis). Furthermore, even if the side walls were to be the parallel sides, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the projecting structures such that the side walls were the non-parallel sides of the parallelogram thereby making at least one side wall with an angle of less than 90 degrees (based on the above analysis) for the purpose of providing a structure that can match with the groove of an alternate embodiment of the adhesive layer. It has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70.

#### ***Response to Arguments***

5. Applicant's arguments filed May 19, 2003 have been fully considered but they are not persuasive.

First, with regards to the Applicant's argument that Calhoun et al. ('765) fail to teach a "substantially continuous" pattern as defined by the Applicant, the Examiner directs the Applicant to the new grounds of rejection above.

Second, with regards to the Applicant's contention that neither Calhoun '930 or Abe '201 fail to control the sidewall angle within a certain range to impact the adhesion of a handling tape to the liner, the limitation on which the Applicant relies, i.e., "selected to enhance adhesion to a tape," has been deleted from the claims via amendment. It is the claims that define the claimed invention, and it is the claims, not specifications that are anticipated or unpatentable. *Constant v. Advanced Micro-Devices Inc.*, 7 USPQ2d 1064. Although the limitation was previously present

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only as an intended use limitation, the Examiner suggests reinserting the limitation as a "means plus" function (see MPEP 2181-2184) such that the functional limitation (i.e., selected to enhance adhesion to a tape) may be given patentable weight (for example, the independent claim 1 may be amended to read "...wherein the structures have at least one angled sidewall means for enhancing adhesion to a tape wherein the angled sidewall means comprises an angle with respect to the plane of the surface of about 30 to about 50 degrees."). Regardless, the fact that the Applicant uses the sidewall angle for a different purpose does not alter the conclusion that its use in a prior art device would be *prima facie* obvious from the purpose disclosed in the reference. *In re Lintner*, 173 USPQ 560. Given that either Calhoun '930 or Abe '201 may alter the sidewall angles between 0 and 90 degrees, the Examiner maintains that it would have been obvious to select an angle between 30 and 50 degrees, depending on the desired end product.


### Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian P. Egan whose telephone number is 703-305-3144. The examiner can normally be reached on M-F, 8:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Y. Pyon can be reached on 703-308-4251. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

  
7/18/03

  
SANDRA M. NOLAN  
PATENT EXAMINER  
T.C. 1700